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Introduction

In accordance with the City Auditor's 2000-01 Audit Workplan, we have audited the Pretreatment Source Control Program (SC Program) of the Watershed Protection Division in the Environmental Services Department (ESD). This is the second audit report on the ESD's Watershed Protection Division (Division). We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

The City Auditor's Office thanks the ESD staff who gave their time, information, insight, and cooperation during the audit process.

Background

SC Program Overview

The Division is responsible for the enforcement and administration of the Pretreatment Source Control Program for the San Jose/Santa Clara Water Pollution Control Plant (WPCP). The Division implements the SC Program throughout the WPCP tributary region, overseeing a total of 461 industrial user facilities, consisting of significant industrial users (SIUs) and non-significant industrial users (non-SIUs).[1]

Federal regulations, 40 CFR Part 403, require the WPCP to develop and implement a local pretreatment program as part of its National Pollutant Discharge Elimination System (NPDES) Permit. Pretreatment programs are based on the premise that limiting the amount of pollutants industries discharge into the sanitary sewer system, and enforcing these regulations, will help pollution control plants meet their own NPDES discharge requirements and ultimately help protect the environment.

Toward that end, the SC Program inspects, samples, and conducts surveillance activities in order to verify industrial users' compliance with pretreatment standards. In accordance with the federal General Pretreatment Regulations contained in 40 CFR Part 403, the SC Program is responsible for inspecting and sampling the wastewater from the SIUs. These are those facilities that are most likely to discharge toxic and

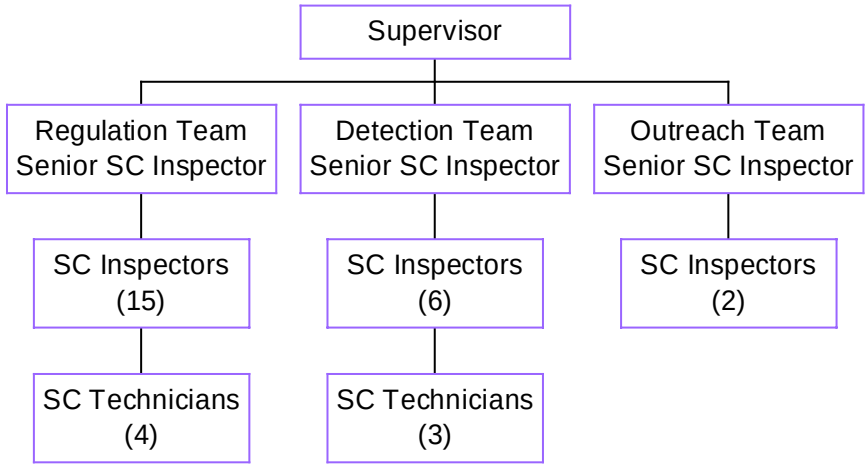
[1] The tributary regional areas include the cities of San Jose, Santa Clara, Milpitas, Campbell, Los Gatos, Monte Sereno, Saratoga, Cupertino, and County Sanitation Districts No. 2 and 3, Burbank and Sunol Sanitary Districts.

conventional pollutants and/or high flow volume to the WPCP. The SC Program also inspects and samples non-SIUs, such as photographic processing facilities, in accordance with local discharge regulations.

SIUs and non-SIUs are responsible for regularly providing the SC Program with Self-Monitoring Reports detailing their facilities' discharge content and flow. The SC Program issues discharge permits to both SIUs and non-SIUs, specifying the discharge limits and Self-Monitoring Report requirements.

The SC Program consists of the following three teams: 1) the Regulation Team, which conducts inspections and compliance sampling at industrial user facilities, 2) the Detection Team, which primarily collects trunkline samples[2] to monitor the wastewater coming into the WPCP, and conducts surveillance monitoring[3] of industrial user facilities and some inspections, and 3) the Outreach Team, which publishes informational material and organizes educational activities. Exhibit 1 is the SC Program's 1999-00 organizational chart and number of authorized positions.

Exhibit 1 SC Program Organizational Chart



SC Inspectors primarily conduct inspections and oversee industrial user compliance while SC Technicians collect samples. According to industry standards and SC Program procedures, during inspections SC Inspectors should, among other things, review facility records; inspect the facility's

[2] The SC Program collects samples at trunkline sites discharging sewer water into the WPCP.

[3] The SC Program conducts surveillance activities through the collection of wastewater samples from sewer lines located outside of selected facilities.

wastewater treatment system to assure all components appear to be functioning properly; inspect chemical storage areas; visually inspect the facility's wastewater effluent for color, flow rate, presence of particulate matter, and pH levels; and record all observation details on an Inspection Field Report form.

In addition to the SC Program's inspection and sampling efforts, the Division also has a technical group, Sanitary Engineering, to coordinate special pretreatment projects that the Regional Board and NPDES permit require. These projects have included Flow Audit Studies for 51 industrial users discharging over 100,000 gallons per day, a Mass Audit Study completed in 1997 to further limit nickel and copper discharge, a financial incentive program to encourage companies to use recycled water, and reviews of Planning Division plans forwarded to the ESD.

In 1999, the SC Program had 461 permitted industrial users consisting of 268 SIUs and 193 non-SIUs. The SC Program issues annual reports to the Regional Water Quality Control Board (Regional Board) summarizing the status of SIU compliance and SC Program accomplishments. During the fourth quarter of 1999, the SC Program reported that 96 percent of the SIUs were in consistent compliance with federal standards.

Program History And Staffing Levels

While the Environmental Protection Agency (EPA) originally approved the WPCP's pretreatment program in 1983, the SC Program underwent dramatic changes in the early 1990s based on a series of orders from the EPA and Regional Board to implement the 40 CFR Part 403 federal regulations. On June 5, 1991, the EPA issued a pretreatment performance evaluation report finding that the City of San Jose failed to perform all pretreatment requirements contained in 40 CFR Part 403 as required to administer the pretreatment program. On July 1, 1991, the EPA issued Order 91-107 and found that the City of San Jose was "in violation of the pretreatment program conditions in the National Pollutant Discharge Elimination System permit issued to the City of San Jose."

The ESD responded to this order by expanding and reorganizing the SC Program. Although the 1991 order noted that the ESD pretreatment program did not adequately identify and sample SIUs at the federal requirement of once per year, in 1991 the SC Program responded by increasing its sampling and

inspection schedule for all industrial users (SIUs and non-SIUs) to as many as 12 times per year, far exceeding the federal requirement. To accommodate the increased workload, the SC Program grew from 10 inspector positions in 1990-91 to 29 inspector positions by 1995-96. In addition, the ESD funded Laboratory positions and resources to process samples the SC Program collected, at an estimated annual cost of $925,000.

In 1995, with a new NPDES permit and demonstrated industrial user compliance, the SC Program recognized that the inspection and sampling frequencies were excessive and decreased them accordingly in its annual report to the Regional Board. The SC Program stated the decrease would, "…allow the city to better utilize limited resources." In the report, the SC Program formally decreased its inspection and sampling frequency schedule to a range of 1 to 4 inspections and sampling events per year, a frequency that was still above the federal requirements. While the Regional Board accepted the reported decrease, the SC Program still continued to assign as many as 12 inspection and sampling events per year per facility. Ironically, in spite of the SC Program's reported decrease in inspection and sampling frequencies, the SC Program's staffing levels peaked in 1995-96 at 39 positions. Exhibit 2 is a summary of the SC Program's staffing levels from 1990-91 to 2000-01 based on adopted operating budget data.[4]

Exhibit 2 Summary Of SC Program Staffing Levels From 1990-91 To 2000-01

Fiscal Year	Supervisor	Senior	Inspector	Technician	Total Staff
1990-91	1	0	10	2	13
1991-92	1	1	16	3	21
1992-93	1	3	20	4	28
1993-94	1	3	25	4	33
1994-95	1	3	25	4	33
1995-96	**1**	**4**	**29**	**5**	**39**
1996-97	1	4	24	7	36
1997-98	1	4	24	7	36
1998-99	1	4	24	7	36
1999-00	1	3	23	7	34
2000-01	1	3	23	7	34

[4] The SC Program's reported staffing levels include the Outreach Team. According to ESD, the Outreach Team was recently transferred to the Business Services Division in 2000-01 and we subsequently did not include the Outreach staffing levels in our analysis.

In 2000-01, the SC Program's budgeted positions shown in Exhibit 2 amounted to $2.97 million. The SC Program is funded through the Treatment Plant Operating Fund (Fund 513). The source of funds for Fund 513 comes from contributions from participants in the wastewater treatment system for the WPCP. In 1999, the WPCP provided wastewater treatment to over 1.3 million residents and 16,000 businesses.

Audit Scope, Objectives, And Methodology

The objective of our audit was to evaluate the effectiveness of internal controls over the Pretreatment Source Control Program. More specifically we determined 1) the extent to which SC Program resources were efficiently utilized, 2) the accuracy and completeness of the facility information database, and 3) if SC Program inspection activities were properly documented, identified violations were appropriately resolved, and inspection activities were properly supervised. The scope of our audit included information on SIU and non-SIU facilities from 1998 to the first two quarters of 2000. We sampled inspection reports in the SC Program files to verify consistency in inspection documentation, enforcement action issuance, and evidence of supervisory review.

A Paradox database serves as the SC Program's principal control in tracking SIU and non-SIU facility information. We obtained a copy of the database's most current information, as it existed at the end of June 2000, and performed numerous analytical tests. We compared the database to other sources of information including ESD Laboratory samples, information contained in annual reports to the Regional Board, enforcement action logs, vehicle fuel logs, and SC Program files. We also examined SC Program workload information contained in the database pertaining to inspections and sampling events for compliance, surveillance, trunkline, and revenue sampling activities. We also reviewed plan check logs, spill response logs, federal regulations, and met with representatives from the Regional Board to clarify regulatory requirements pertaining to the SC Program. We did not perform testing on the adequacy of controls over data entry, including passwords and database access.

The Outreach Section, which includes one senior and two inspector positions, was not included in the scope of our audit. The City's revenue program was also not included in the scope

of this audit. Report references regarding technician workload levels assume SC Technicians continue the same level of effort on the revenue program sampling.

We omitted confidential surveillance information concerning a facility currently involved in litigation.

Major Accomplishments Related To This Program

In Appendix B, the Watershed Enforcement Division of the ESD informs us of its major accomplishments regarding the Pretreatment Source Control Program.

Finding I

The Environmental Services Department Can Reduce The Staffing Costs Of The Pretreatment Source Control Program By As Much As $1.7 Million Per Year Without Jeopardizing Program Responsibilities

The Environmental Services Department's (ESD) Pretreatment Source Control Program (SC Program) is responsible for inspecting and sampling wastewater from industrial users that discharge into the sanitary sewer system to ensure they are in compliance with federal and local pretreatment standards. The SC Program has 21 authorized Source Control Inspector (SC Inspector) positions, 2 Senior SC Inspector positions, and 7 Source Control Technician (SC Technician) positions to conduct inspections, sampling events, and to enforce pretreatment violations.

We found that the SC Program is significantly overstaffed and inefficient when we compared the SC Program's actual activity levels to federal and local requirements. Our conclusion is based upon the following:

- The SC Program has too many inspector and technician positions when compared to the required level of activities;
- The SC Program over-inspected industrial user facilities and collected excessive samples;
- There is no justification for the SC Program's level of surveillance efforts;
- The SC Program's current level of trunkline sampling is inefficient and is a poor use of SC Inspector resources;
- SC Regulation Team and Detection Team Inspectors spent only 43 and 45 percent, respectively, of their available workdays doing inspections and taking samples;
- SC Inspectors completed only one inspection during 51 percent of the workdays they actually conducted inspections;

- Many of the activities the SC Program counted as inspections primarily involved SC Inspectors only reading meters or taking samples; and
- The SC Program can improve inspector efficiency, and improve customer service, by transferring certain non-inspection activities to more appropriate areas.

As a result, in our opinion the ESD can reduce the cost of the SC Program by as much as $1.7 million per year without jeopardizing its ability to satisfy SC Program requirements. In addition, the SC Program's overstaffing resulted in unnecessary vehicle costs. Finally, the SC Program's sampling efforts cost the Water Pollution Control Plant (WPCP) an estimated $925,000 in associated Laboratory costs. More efficient SC Program sampling would significantly reduce these Laboratory costs.

The ESD is aware the SC Program is overstaffed, needs to be revamped, and that various ESD inspection activities should be consolidated. Accordingly, the ESD is preparing a budget reduction plan for the SC Program for the 2001-02 budget process. In addition, the ESD is also proposing an evaluation of the efficiency of the WPCP Laboratory workload and processes. In our opinion, the ESD's efforts along with the recommendations included in this audit report, will significantly improve the efficiency of the SC Program and related WPCP Laboratory activities.

The SC Program Has Too Many Inspector And Technician Positions When Compared To The Required Level Of SC Program Activities

The SC Program's frequency schedule defines the minimum number of inspections and sampling events the SC Program must complete at each industrial user facility in order to determine industrial user compliance with pretreatment program standards. The frequency schedule also defines the SC Program's workload and staff resources necessary to complete program requirements. Federal regulations in 40 CFR Part 403 (federal regulations) require a minimum of one annual inspection and sampling event for each Significant Industrial User (SIU). However, the SC Program committed to a higher frequency in its annual reports to the Regional Water Quality Control Board (Regional Board), specifically that the SC Program would conduct up to 4 inspections and 2 sampling events for each SIU and non-SIU.

According to the Regional Board, the SC Program is required to meet the reported frequency schedule throughout the term of

the current National Pollutant Discharge Elimination System (NPDES) Permit. The current NPDES Permit expires in 2003.

We found the SC Program did not consistently follow the required inspection and sampling frequency schedule in its annual report. Instead, the SC Program used an internal scheduling procedure requiring 1 to 12 inspections and sampling events per year for each industrial user, up to three times more than the frequency schedule required in the SC Program's annual reports. Furthermore, we found that SC Program managers were not aware that the SC Program inspection and sampling procedures the supervisors created greatly exceeded those frequencies the Regional Board required.

Exhibit 3 summarizes the workload and staffing levels associated with federal and Regional Board inspection and sampling frequency requirements, and actual SC Program activity levels.

Exhibit 3 Workload And Staffing Requirements Associated With Federal And Regional Board Inspection And Sampling Frequency Requirements And Actual SC Program Activity Levels

Frequency Requirement	Number Of Inspections	Number Of Compliance Samples	Number Of Surveillance & Trunkline Samples	SC Inspector Positions[5]	SC Technician Positions[5]	Total Positions
Federal Regulations	270	270	Not specified[6]	2	3	5
Regional Board	1,200	980	Not specified[6]	4	4	8
Actual SC Program Activity Levels	2,200	2,200	2,600	21	7	28

As shown in Exhibit 3, the SC Program's workload and staffing levels are directly related to the frequency of inspections and sampling events. In comparison to the four SC Inspector and four SC Technician positions necessary to complete Regional Board inspection and sampling frequency requirements, the SC

[5] See Appendix C for methodology on the workload and staffing analysis.

[6] Federal regulations and Regional Board NPDES Permit requirements do not specify an amount of required surveillance and trunkline sampling. See pages 13-16 for a discussion of surveillance and trunkline sampling and activities.

Program in 1999-00 included 21 SC Inspectors and seven SC Technicians.

The SC Program Over-inspected Industrial User Facilities And Collected Excessive Samples

The number of inspection and sampling events directly impacts the SC Program's workload and staffing levels. According to the 40 CFR Part 403 federal regulations, to verify compliance with pretreatment standards the SC Program must at a minimum annually inspect SIU facilities and annually sample SIU wastewater. Although not specifically required by federal regulations, the SC Program also inspects and samples non-SIUs based on local discharge standards. We found that the SC Program exceeded these requirements by over-inspecting industrial users and collecting excessive samples without demonstrating a corresponding benefit in industrial user compliance.

During 1999, The SC Program Conducted Over 400 Unnecessary Inspections And Collected Over 500 Unnecessary Compliance Samples At Industrial User Facility Sites Without Discharge Violations

In 1999, the SC Program conducted 2,157 industrial user inspections and collected 2,208 compliance samples at industrial user facilities. We found that the SC Program greatly exceeded the required frequencies reported to the Regional Board and over-inspected and over-sampled facilities that did not have any pollutant or corrosive discharge violations for at least two years. During 1999, at least 405 (19%) of the SC Program's inspections and 554 (25%) of the SC Program's compliance sampling events were unnecessary. In fact, according to SC Program documents, "…inspectors are encouraged to use their discretion in increasing the frequency of inspection and sampling if they feel it is warranted."

The SC Program may have over-inspected and over-sampled additional facilities since our estimates do not include those facilities that may have had minor violations in 1998 or 1999 that were immediately corrected. For example, in 1999 the SC Program inspected one SIU 25 times and conducted 28 sampling events collecting a total of 39 compliance samples. Our review of the inspection records found the SC Inspector assigned to inspect the facility noted no problems in 24 of the 25 inspection reports. Only one report noted the facility's recycled water treatment system was temporarily closed while the facility was fixing a broken part, but "no other equipment problems noted" and "effluent looks clear." This facility had three minor violations during April and May of 1998 that were corrected in 1998, as demonstrated in subsequent sampling

results. The facility did not have any violations during 1999 to support the additional sampling and inspections in 1999.

Furthermore, while the SC Program would presumably have cause to increase the inspection and sampling frequency at facilities with violations, we found no evidence that the excessive inspections and sampling rates were directly related to discharge violations of non-compliant industrial users. For example, one industrial user facility with three discharge violations in 1998 and one discharge violation in 1999 received 12 inspections and 12 samples while another industrial user facility with no discharge violations in 1998 and 1999, also received 12 inspections and 12 samples. Exhibit 4 shows additional examples in which the SC Program inspected and sampled facilities at various and excessive rates, regardless of their compliance history.

Exhibit 4 Comparison Of The Number Of Inspections And Samples For Industrial User Facilities With Different Numbers Of Discharge Violations In 1998 And 1999

Facility	1999 Inspections	1999 Compliance Samples	1998 Discharge Violations	1999 Discharge Violations
1	13	4	0	0
2	13	11	6	0
3	13	12	0	1
4	13	12	4	1
5	12	10	3	3
6	12	12	0	0
7	12	12	1	6
8	12	12	0	0
9	12	12	0	0
10	12	16	1	0

The SC Program's excessive inspections and sampling continued throughout 2000. For example, the SC Program inspected the first facility, shown in Exhibit 4, 14 times during 2000, even though it did not have any violations during 1998, 1999, and 2000. The SC Program inspected the sixth facility, shown in Exhibit 4, 11 times and collected 12 samples during 2000, even though this facility did not have any violations during 1998, 1999, and 2000.

Our analysis of industrial user facilities with the most discharge violations during 1999 also confirms the SC Program's number of inspection and sampling events did not consistently correspond to the number of violations, as shown in Exhibit 5.

Exhibit 5 1999 SC Program Inspections And Samples At Facilities With The Most Discharge Violations

Facility	Number Of Discharge Violations	Number Of Inspections	Number Of Compliance Samples
1*	28	10	11
2*	24	19	43
3	7	9	13
4	7	7	8
5	7	13	5
6	7	15	32
7	6	12	12
8*	6	20	24
9	5	14	19
10	5	6	4
11	5	6	14
12	5	5	3

* Facility included in SC Program surveillance sampling activities as well.

Furthermore, the SC Program conducted excessive inspections even though information shows that significantly increasing inspections does not necessarily identify violations or ensure industrial user compliance. According to SC Program supervisors, a majority of the violations are identified through sampling, not inspections. This is supported by the fact that sample results and industrial user self-monitoring, not inspections, detected most of the violations in 1998, 1999, and 2000. During 1999, the SC Program's 2,157 inspections identified only three violations that could have only been discovered through an on-site visit. These violations were for a blocked sewer, a failure to record a flow meter reading, and a failure to allow the SC Inspector access to the facility.

In addition, SC Inspectors have stated that numerous inspections do not necessarily ensure compliance. For example, one company reported it had pH violations during a four-month period from November 1999 to February 2000. The SC Program planned to increase the number of inspections at the facility, however the SC Inspector stated, "I will inspect

[the facility] twice in March and monthly for the rest of the year at least. However, to tell the truth I think getting the attention of [the facility's] management about an organization wide lack of communication on environmental compliance is much more likely to prevent violations than any number of inspections."

Given the amount of inspector discretion and lack of adequate procedures to identify the appropriate level of inspection and sampling efforts necessary to meet regulatory requirements, the SC Program cannot ensure that it is utilizing its resources in an efficient or effective manner. Specifically, in the absence of clearly defined and appropriate frequencies, the SC Program cannot ensure that its workload efficiently satisfies regulatory requirements, and that its staffing levels are consistent with its identified workload. In our opinion, the ESD needs to establish and implement an appropriate level of inspections and sampling.

We recommend that the ESD:

Recommendation #1

- **Establish appropriate minimum inspection and sampling frequencies for significant and non-significant industrial users that are consistent with program requirements and**
- **Update SC Program procedures to reflect appropriate inspection and sampling frequencies and ensure SC Program staff compliance with these procedures. (Priority 2)**

There Is No Justification For The SC Program's Level Of Surveillance Efforts

The SC Program's surveillance program is based on the EPA's federal regulations from 40 CFR 403.8 (f)(2)(v), stating that pretreatment programs shall conduct surveillance activities in order to identify independent of information supplied by industrial users, occasional and continuing non-compliance with pretreatment standards. The SC Program's Detection Team conducts surveillance activities primarily through the collection of wastewater samples in street sewer lines located outside of selected industrial user facilities. The Detection Team mainly dedicated a two-person workgroup to collect these samples during evening and weekend shifts.

Although the federal regulations require surveillance activities, they do not specify a required amount of surveillance sampling necessary to detect non-compliance. In addition, the SC

Program does not have procedures to define the necessary level of surveillance sampling or to identify industrial user facilities subject to surveillance. As a result, we found that 1) the SC Program's surveillance sampling detected relatively few violations yet consumed 38 percent of the SC Program's sampling resources; 2) the SC Program's surveillance sampling did not target facilities that were found to be in significant non-compliance; and 3) the SC Program is susceptible to overextending and misdirecting its surveillance efforts.

In 1999, the Detection Team collected 1,824 surveillance samples, representing 38 percent of the entire SC Program's samples. Of these 1,824 surveillance samples, 52 identified discharge violations, for a violation detection rate of 2.9 percent. However, on average the Detection Team's surveillance samples from 1998, 1999, and the first six months of 2000, detected violations in only 1 to 4 percent of the samples. In comparison, the Regulation Team's compliance samples detected violations in 5 to 8 percent of their samples.

Furthermore, although the federal regulations require surveillance programs as a method to identify non-compliant facilities, during 1999 the SC Program did not perform any surveillance activities at four of the five industrial users identified as being in significant non-compliance. Even though all of the industrial users in significant non-compliance during 1999, and a majority of SIU facilities, were located in San Jose, three of the SC Program's four designated surveillance sites were located in Santa Clara. The SC Program collected 76 percent of its total surveillance samples at these three sites.

We also found that the SC Program's surveillance sampling is susceptible to misdirecting and overextending its efforts because there are no written procedures guiding the selection of surveillance facilities or the amount of sampling necessary to demonstrate non-compliance. The decision to conduct surveillance sampling at certain sites is left to the discretion of the Detection Team members.

Despite the large number of samples the Detection Team collected, SC Program managers did not know the extent or effectiveness of the SC Program's sampling efforts because it did not track Detection Team surveillance samples on the Program's tracking database. According to the section supervisor, surveillance samples containing violations should be included in the Program's tracking database yet we found

that the database did not include 17 percent of the surveillance samples with violations. As a result of fragmented and incomplete information, the SC Program reported in its 1999 annual report that it collected 611 surveillance samples while we identified at least 1,824 surveillance samples.

The SC Program's Current Level Of Trunkline Sampling Is Inefficient And Is A Poor Use Of SC Inspector Resources

The SC Program's Detection Team collected samples at three trunkline and five upstream monitoring sites discharging sewer water into the WPCP, and forwarded samples to the ESD Laboratory for processing. Although trunkline and upstream (trunkline) sampling is not a federal requirement, in 1995 the ESD committed to and implemented a trunkline program focused on tracing pollutants upstream from the WPCP to their source. However, we found the SC Program's frequency of trunkline sampling appears to be inefficient because of the limited benefit derived from the high number of trunkline samples and its use of SC Inspector resources.

The frequency of trunkline sampling directly affects the level of resources necessary to conduct trunkline activities. However, SC Program managers did not provide necessary guidance or procedures to determine the appropriate frequency and level of trunkline sampling. We found that the SC Program generally collected samples at the trunklines twice each week, resulting in over 700 trunkline samples.

Despite the SC Program's high frequency of trunkline sampling, we found that the level of trunkline sampling produced limited benefits in terms of detecting sources of pollutants. According to the SC Program's January 2000 Clean Bay Strategy Report, trunkline sampling is needed to identify sources of extreme pollutant concentrations entering the WPCP and the data is used to support surveillance, inspection, and enforcement efforts. However, the last documented case in which the trunkline program came close to tracing the source of a pollutant spike to the WPCP occurred in 1996. In 1996, the Detection Team efforts were able to trace a nickel violation within a three-square block area after months of effort. However, the discharges discontinued before SC Program personnel were able to positively identify the source.

Moreover, when the trunkline program was initiated in 1995, the intent was to use SC Technicians, not inspectors, to conduct the sampling. However, we found that SC Program managers assigned mostly SC Inspectors, each with an annual cost of

$98,000, instead of SC Technicians to collect trunkline samples. In comparison, each SC Technician costs the SC Program only $63,000 per year, or $35,000 per year less than an inspector position.

In the absence of clearly defined and justifiable sampling frequencies, the SC Program cannot ensure that its workload efficiently satisfies regulatory requirements, and that its staffing levels are consistent with its identified workload. In our opinion, the ESD needs to establish consistent and appropriate sampling levels for surveillance and trunkline efforts. Furthermore, the ESD also needs to develop a system to routinely and objectively identify appropriate facilities subject to surveillance activities.

We recommend that the ESD:

Recommendation #2

- **Identify a consistent and justifiable level of effort necessary to fulfill all federal requirements for surveillance sampling and for trunkline sampling;**
- **Develop procedures to ensure the SC Program staff adhere to established surveillance and trunkline sampling frequencies; and**
- **Develop a system to routinely and objectively identify appropriate facilities subject to surveillance activities. (Priority 2)**

SC Regulation Team And Detection Team Inspectors Spent Only 43 And 45 Percent, Respectively, Of Their Available Workdays Doing Inspections And Taking Samples

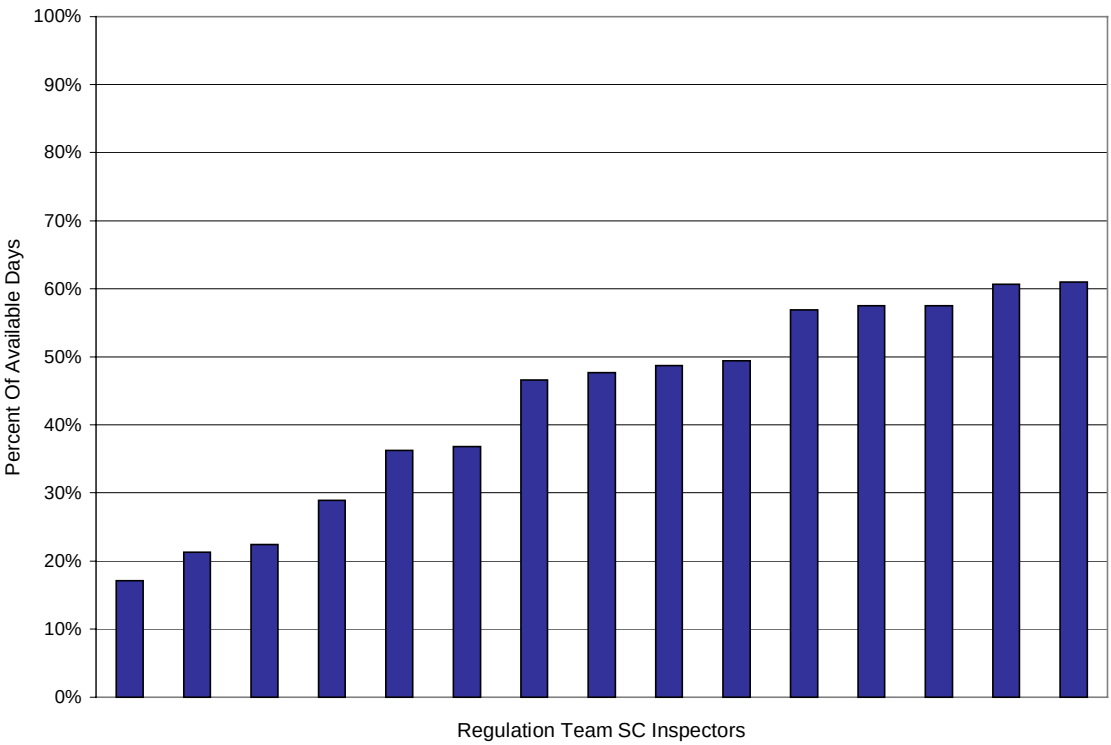
SC Program managers must ensure that SC Inspectors efficiently utilize their time conducting effective and comprehensive inspection activities to ensure productive and appropriate staffing levels. However, as a result of poor inspection scheduling, inspector discretion, and the fact that the SC Program is overstaffed, we found that SC Regulation Team and Detection Team Inspectors did inspections and took samples during 43 and 45 percent, respectively, of their available workdays.[7]

We found that during 1999, the Regulation Team SC Inspectors who were responsible for completing most of the inspection workload, on average did inspections on only 43 percent of

[7] Available workdays include the total number of workdays available to inspectors each year, after subtracting City holidays, sick leave, and vacation leave, and accounting for alternate workweek schedules.

their available workdays. Specifically, Regulation Team SC Inspectors conducted inspections from as few as 33 days (17%) to as many as 133 days (61%) of their available workdays, as shown in Exhibit 6.

Exhibit 6 Percent Of Total Available Days Regulation Team SC Inspectors Did Inspections During 1999



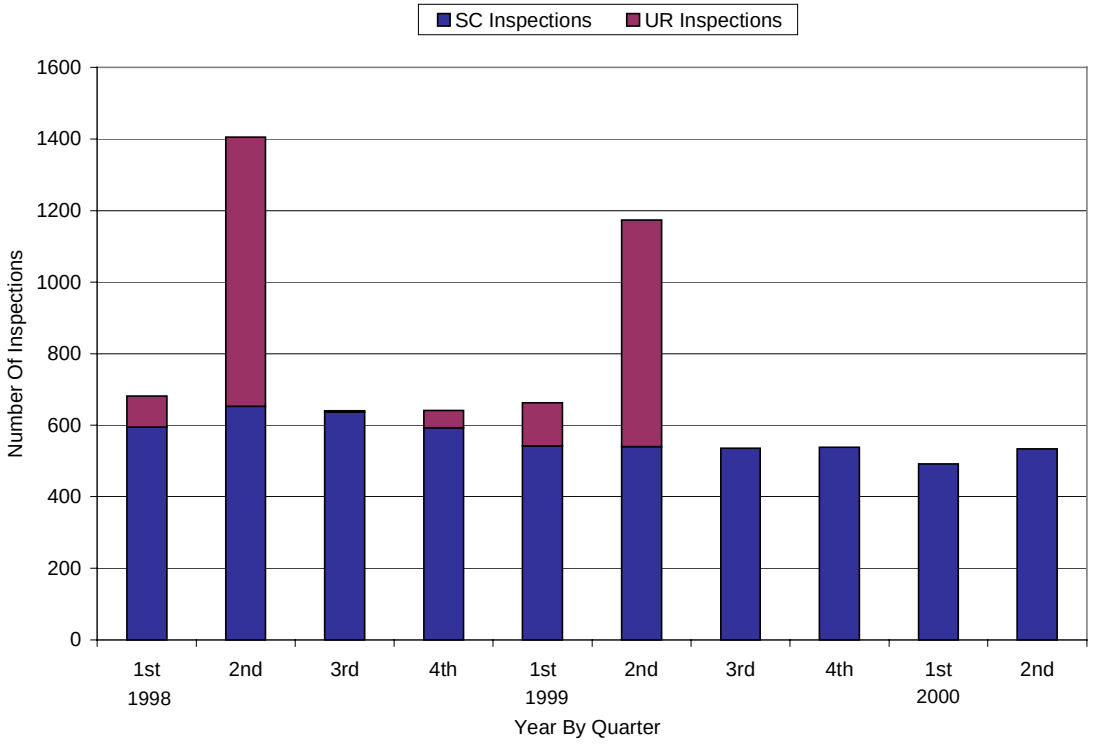
Similarly, in 1999, Detection Team SC Inspectors did inspections and sampling events on only 45 percent of their available workdays. It should be noted that three of the Detection Team SC Inspectors collected trunkline and surveillance samples and also did a small number of Urban Runoff and industrial user compliance inspections. However, these three inspectors did all of these activities, including inspections and sampling events, using only 45 percent of their available workdays in 1999.

It should be noted that during the second quarters of 1998 and 1999, SC Inspectors were able to easily accommodate a doubling of their inspection workload by doing Urban Runoff inspections. Specifically, during the second quarter of 1998, SC Inspectors from both the Regulation and Detection Teams conducted 653 SC inspections and 752 Urban Runoff

inspections. During the second quarter of 1999, SC Inspectors conducted 541 SC inspections and 633 Urban Runoff inspections.

Even with the addition of the Urban Runoff inspections the number of SC Program inspections remained unaffected, as shown in Exhibit 7. The number of non-inspection activities such as plan checks for grease traps and issuance of discharge permits also remained relatively constant, indicating that SC Inspectors were able to easily accommodate the temporary workload increase.

Exhibit 7 Number Of Source Control And Urban Runoff Inspections Completed By Source Control Inspectors Per Quarter For 1998 To June 2000



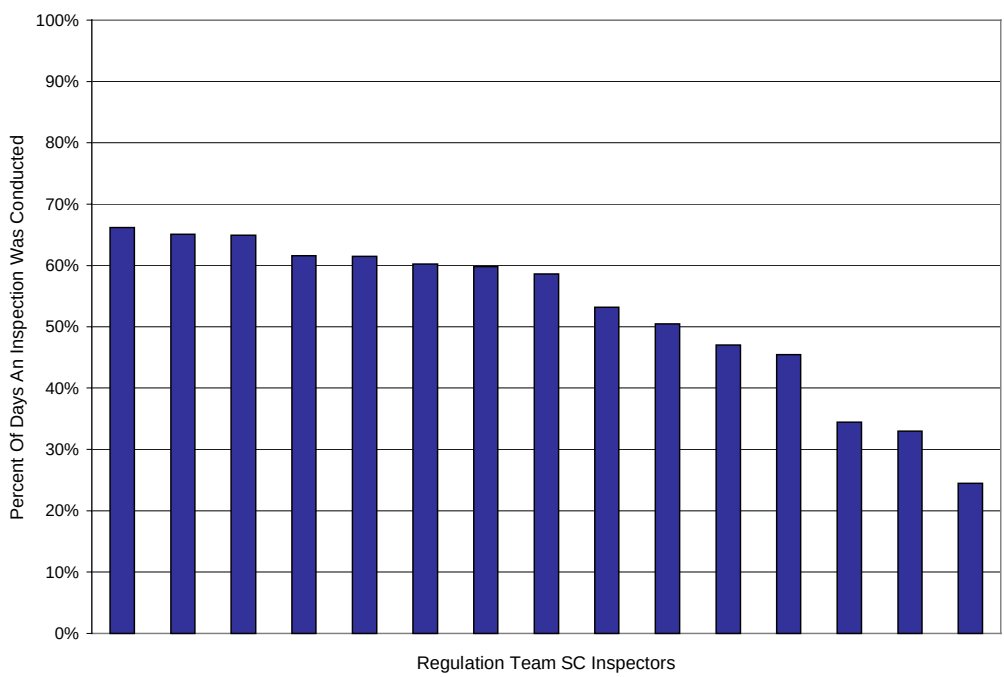
Without the additional Urban Runoff inspections, Regulation Team SC Inspectors did inspections on only 38 percent of the available workdays during the first six months of 2000.

Regulation Team SC Inspectors Conducted Only One Inspection During 51 Percent Of The Workdays They Actually Conducted Inspections

Efficient inspection scheduling is important because some industrial user facilities are located in cities throughout the tributary area and are some distance from the WPCP on Zanker Road. To schedule inspections more efficiently, the SC Program assigned industrial user facilities to SC Inspectors based on geographic area and type of facility. Although the SC Program tried to assign facilities in an efficient manner, we found that SC Inspectors did not utilize the geographic assignments to conduct a series of inspections during their time in the field. Instead, we determined that SC Inspectors completed only one inspection 51 percent of the time they went out to conduct inspections during 1999.

For example, one inspector did inspections on only 36 percent of his available nine-hour workdays, and on those days, did only one inspection 59 percent of the time. Another SC Inspector did inspections on only 29 percent of his available eight-hour workdays, and on those days, did only one inspection 65 percent of the time. Exhibit 8 shows the percentage of workdays in which SC Inspectors completed only one inspection during an eight to ten-hour workday.

Exhibit 8 Percent Of Days During 1999 When SC Program Regulation Team Inspectors Did Only One Inspection On A Day Inspections Were Done



Even though Regulation Team SC Inspectors routinely conducted only one inspection per day, our analysis indicates at their most productive time period, during the second quarter of 1998, SC Inspectors averaged three inspections per day. At this rate, one SC Inspector would be able to complete approximately 580 inspections per year. This workload estimate is consistent with 1990-91 Adopted Operating Budget Program information that stated that an inspector was capable of doing 600 inspections per year.

Many Of The Activities The SC Program Counted As Inspections Primarily Involved SC Inspectors Only Taking Samples Or Reading Meters

According to SC Program procedures and EPA guidance, during pretreatment compliance inspections SC Inspectors should 1) inspect the facility's wastewater treatment system to assure all components are functioning properly, 2) inspect the facility's production lines noting potential sources of pollution, 3) inspect chemical storage areas, 4) inspect the facility's sampling station and equipment, 5) evaluate the facility's records and logbooks, and 6) visually inspect the facility's wastewater discharge for color, flow rate, and presence of particulate matter. When we reviewed the inspection records, we found that inspectors frequently made site visits at facilities to mainly read pH meters and collect samples, rather than performing inspections according to SC Program procedures and EPA guidance. The facility should have provided this information through routine Self-Monitoring Reports or a technician could have gathered such information during sampling visits.

For example, during the first six months of 2000, a Regulation Team SC Inspector visited one facility 15 times to read the facility's pH recorder. Of the 83 inspection records we reviewed, 47 (57%) did not include any indication that the required inspection tasks were completed, and 17 (20%) were cases where inspectors mainly collected samples. It should be noted that in at least one of these cases where the inspector only took a sample, the inspector noted the facility had already been sampled. Furthermore, there was no indication SC Program supervisors had reviewed the inspection reports to identify these deficiencies.

Other jurisdictions with pretreatment programs have recognized the importance of conducting comprehensive inspections and have accordingly adjusted their inspection frequencies and types of inspections to reflect this priority. For example, King County in Washington State and Portland, Oregon both conduct

one major annual inspection for each SIU and, if necessary, their inspectors follow-up during the year with another minor inspection.

SC Program managers must ensure that inspectors utilize their time efficiently and effectively. As SC Program procedures note, inspections not only help to determine the compliance status of an industrial user, they also try to prevent non-compliance by identifying practices that may lead to violations. However, a high frequency of inspections does not necessarily ensure industrial user compliance if the inspections themselves do not include a thorough examination of the facility's processes, equipment, records, and wastewater discharge. In our opinion, the SC Program needs to ensure staff time is used efficiently and that management provides adequate oversight in order for SC inspections to 1) effectively ensure compliance with pretreatment standards, 2) prevent violations from occurring, and 3) reduce the need for additional staff that can result from increased inspections.

We recommend that the ESD:

Recommendation #3

Schedule SC Program inspection and sampling events to optimize the use of SC Program staff time and resources. (Priority 2)

Recommendation #4

Develop written procedures and management reports to allow for adequate supervisory review and oversight of SC Program activities and ensure adherence with SC Program inspection goals, procedures, and frequencies. (Priority 3)

The SC Program Can Use SC Inspectors More Efficiently And Effectively And Improve Customer Service By Transferring Certain Non-Inspection Activities To Other ESD Or City Personnel

Although SC Inspectors are primarily responsible for inspecting, sampling, and enforcing violations at industrial user facilities, we found that SC Inspectors spent time conducting other non-inspection activities. Specifically, we found that each SC Inspector rotated daily phone duties and three SC Inspectors were dedicated to database assignments. Furthermore, we found that SC Inspectors conducted plan checks of certain permit applications, requiring customers to make an unnecessary trip to the WPCP located on Zanker Road. In our opinion, SC Inspectors should not do these non-inspection activities because 1) they take away from the time SC Inspectors can spend doing inspections and 2) other ESD or City personnel can do these non-inspection activities more efficiently and effectively and provide better customer service.

The SC Program's Plan Check Process Unnecessarily Requires Permit Customers To Visit The WPCP Plant Located On Zanker Road

The City of San Jose is developing a "one-stop permit center" to ultimately allow customers to apply for, obtain, and track all development permits the City issues via the Internet. The concept of the one-stop permit center is to improve customer service and accessibility to City services. However, we found that the SC Program's plan check process unnecessarily requires permit customers to drive to the WPCP located on Zanker Road near Milpitas.

SC Inspectors currently conduct plan checks for food-service building plans and potential industrial sites located throughout the tributary. To ensure oil and grease do not overflow into the sanitary sewer system, SC Inspectors verify the size and necessity of grease traps in food-service facilities using the Uniform Plumbing Code (UPC). In addition to receiving approval from the County Health Department and the respective city building department of the project site, all customers seeking approval for food-service plans are required to bring a set of plans to the WPCP located on Zanker Road in San Jose.

During 1999, SC Inspectors conducted 228 plan checks, 165 (72%) of these plan checks were to verify the necessity and sizing of grease traps and grease interceptors in food-service facilities. At least 60 (36%) of 165 food-service plan checks resulted in no further requirements, yet customers located as far away as Los Gatos had to drive to the WPCP for these plan checks.

A survey of customers who received food-service plan checks from ESD shows that while the service is courteous, the process can be cumbersome and confusing. Customers reported instances when they had to go back and forth between the Health Department and ESD, and stated that the steps needed to approve plans were confusing and the process required a lot of "running around." One customer stated the following: "The ESD on Zanker Road is out of the way. Because it is only the physical plans that need approval, [the customer] should be able to use the fax." The SC Program's own plan check materials advise customers, "Please be sure to allow for sufficient travel time due to heavy Highway 237 traffic in the mornings."

While grease traps need to be appropriately sized to prevent inadvertent spills, building department plan check engineers are formally trained in applying the UPC and review all plans before they are permitted. In fact, we found instances in which building departments approved the grease trap size and the SC Program did not check the plans. For example, the San Jose Building Division sized the grease interceptor and approved plans for a restaurant in San Jose, without receiving ESD approval. By so doing, these building department staff not only sized the grease traps but also relieved their customers of the burden of driving to the WPCP.

SC Inspectors Spent Time Conducting Phone Duty And Database Assignments

In addition to doing plan checks, we found SC Program staff performed other non-inspection activities. All SC Inspectors rotate daily phone duty requiring one inspector to stay in the office throughout the entire workday. During phone duty, the assigned SC Inspector is available to answer phone call inquiries the reception desk directs to them and to do plan checks. Ironically, even though inspectors on phone duty are available for plan check drop-ins, we found that SC Inspectors frequently scheduled plan check appointments for days they were not assigned to phone duty. This practice caused inspectors to remain in the office on days they could be conducting inspections. In our opinion, SC Program supervisors should answer phone inquiries because they do not have inspection activities and are already in the office on a daily basis. SC Inspectors could be contacted in the field using their assigned cell phones and pagers in the event it is necessary to contact them.

The SC Program also assigned three inspector positions from the Regulation Team to assist in generating reports from the SC tracking database. During 1999, these three inspectors spent

approximately 60% to 80% of their workdays on non-inspection activities. When these three inspectors did conduct an inspection, 60% to 66% of the time they conducted only one inspection during each shift. The value of dedicating three SC Inspectors to the database is questionable because many SC Inspectors maintained their own separate logs to keep track of their inspection activities and facility information. In addition, SC Program supervisors could not use the database to generate management reports on SC Program activities because the database required an auxiliary software to generate reports and SC Program personnel knowledge of this software was limited.

SC Inspectors are primarily responsible for conducting inspections. However, non-inspection activities including plan checks, database assignments, and phone duty, reduce SC Inspectors' ability to focus on their primary responsibilities. Moreover, the existing plan check process is inconsistent with the City's one-stop permit strategy and the City's overall focus on delivering customer-friendly service. In our opinion, other ESD or City personnel should perform these non-inspection activities so that SC Program resources are better used and customers are better served.

We recommend that the ESD:

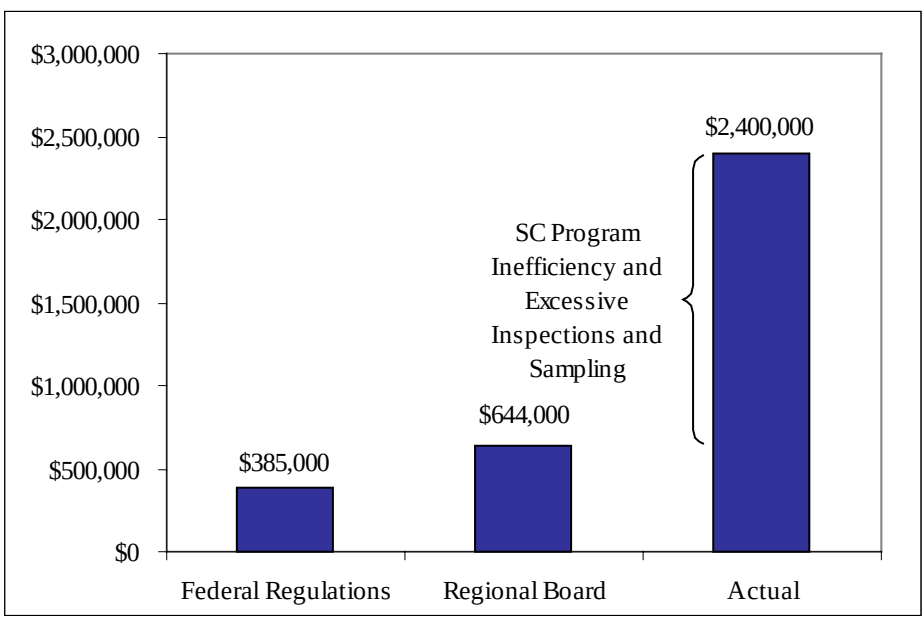
Recommendation #5

- **Evaluate options to eliminate or reduce the need for customers to visit the WPCP for plan check services related to grease traps and grease trap interceptors;**
- **Require SC Program supervisors to answer phone inquiries; and**
- **Reassign the three SC Inspectors working on the SC Program tracking database to inspector activities. (Priority 2)**

The ESD Can Reduce The Cost Of The SC Program By As Much As $1.7 Million Per Year Without Jeopardizing The SC Program's Ability To Satisfy SC Program Requirements

Because of operational inefficiencies and the SC Program's excessive level of inspection and sampling events, the SC Program is significantly overstaffed. Exhibit 9 shows the SC Program's actual budgeted inspector and technician salary costs from the Treatment Plant Operating Fund (Fund 513) compared to the same costs[8] associated with an efficient application of the two regulatory requirements and frequency schedules we identified -- those frequencies specified in federal regulations and in annual reports to the Regional Board. As stated earlier in this report, even though federal regulations require a minimum of one annual inspection and sampling event for each SIU, the SC Program committed to a higher frequency in its annual reports to the Regional Board and subsequently incorporated this into their current NPDES Permit and SC Program requirements.

Exhibit 9 The SC Program's Actual Costs For Budgeted Inspector And Technician Positions Compared To The Costs For Inspector And Technician Positions Needed To Complete Federal And Regional Board Requirements



As evident in Exhibit 9, the frequency and efficiency of inspection and sampling events directly impacts the SC Program's staffing costs. The difference between the SC

[8] Salary costs include fringe benefits and overhead and are based on staffing levels shown in Exhibit 3.

Program's actual cost of $2,400,000 minus the $644,000 in costs needed to efficiently satisfy the Regional Board requirements, amounts to over $1.7 million. As a result, we estimate that by 2000-2001 the SC Program was spending over $1.7 million more in staffing costs than required to satisfy NPDES Permit requirements.

The ESD has recognized the SC Program is overstaffed, needs to be revamped, and inspection activities should be consolidated. Accordingly, the ESD is preparing a budget reduction plan for the SC Program. While these steps will help to alleviate some of the issues we note in this audit report, in our opinion, the ESD also needs to reevaluate the SC Program's mission, goals, and objectives in regards to defining the necessary workload, activities, staffing levels, and duties required to complete current regulatory requirements.

We recommend that the ESD:

Recommendation #6

Define the SC Program's mission, goals, objectives, and work activities. (Priority 2)

Recommendation #7

Identify the SC Program's actual required workload, and develop a staffing plan based on NPDES Permit requirements and an efficient use of inspector and technician positions. (Priority 1)

Recommendation #8

Submit a budget proposal to the City Council based upon the implementation of Recommendations # 1, 6, and # 7. (Priority 1)

The SC Program's Overstaffing Resulted In Unnecessary Vehicle Costs

Employees spending a majority of their time in the field need vehicles for traveling to and from work activities. SC Inspectors and SC Technicians primarily conduct fieldwork inspections and sampling events throughout the tributary. Accordingly, the SC Program assigns a vehicle to each SC Inspector and SC Technician, for a total of 28 vehicles including spares. However, because the SC Program is overstaffed and does not have a sufficient workload to

efficiently deploy staff resources, we found that the SC Program under-utilized the vehicles assigned to it.

Based on our analysis of vehicle usage from September 1998 through October 1999, we found that the 15 Regulation Team inspectors averaged only 5,069 miles per year on their respective City vehicles. Of these inspectors, eight averaged less than 5,000 miles on their vehicles. Exhibit 10 is a summary of the SC Program's vehicle usage for the Regulation Team.

Exhibit 10 Vehicle Usage By Regulation Team Inspectors From September 1998 Through October 1999

Inspector	Number Of Miles Driven	Average Miles Per Inspection
1*	10,787	44
2*	7,459	23
3*	7,339	98
4	7,094	31
5	5,713	31
6	5,496	21
7	5,144	21
8	4,493	37
9	3,882	54
10	3,761	23
11	3,594	15
12	3,561	26
13	3,063	14
14	2,544	40
15*	2,107	27
Average	5,069	34

*Assigned inspection area is located within a 5-mile radius of the WPCP.

Despite the under-utilization of its vehicle inventory, in 1999-00 the SC Program budgeted $75,000 to purchase five new vehicles. The SC Program purchased the five vehicles at a cost of $89,600. In the City Operating Budget, the ESD stated these five vehicles were necessary to allow the SC Program to complete 77 percent of its "required" inspections. The SC Program purchased these new vehicles despite the availability of vehicles in the WPCP vehicle pool, which are available to all

ESD staff. For example, our review of ESD vehicle fuel logs found that the WPCP vehicle pool had ten available vehicles each with less than 30,000 miles.

Furthermore, our analysis found that the new vehicles were not fully utilized to meet inspection goals. Specifically, we found that the SC Program dedicated one of these five new vehicles as a spare and did not assign it to an inspector or technician. A second of the new vehicles the ESD purchased for an estimated $17,920 was mistakenly delivered to the San Jose Police Department and housed there for months before the SC Program finally received the vehicle.

In our opinion, the SC Program can reduce its vehicle inventory once it identifies its appropriate staffing levels. To the extent the ESD reduces the number of inspectors and technicians in the SC Program, vehicles currently assigned to those positions could be reduced commensurately. In addition, by reducing the number of inspectors and technicians from 28 to 8, as shown in Exhibit 3, the ESD might be able to make as many as 20 vehicles available to other City departments, thereby potentially deferring as much as $360,000 in vehicle purchasing costs.

We recommend that the ESD:

Recommendation #9

Make appropriate changes in the SC Program's vehicle inventory to reflect the SC Program's required staffing level. (Priority 2)

Finally, the City's 2002-06 Five-Year Economic Forecast and Revenue Projections included an annual expenditure of $2 million and one-time expenditure of $8.6 million to fund vehicle replacement throughout the City, at a total five-year cost of $18.6 million.

Given the magnitude of these proposed purchases and our analysis of vehicle usage in the ESD's SC Program, we recommend adding the City's five-year vehicle replacement program to the City Auditor's 2001-02 Workplan.

We recommend that the City Council Rules Committee:

Recommendation #10

Include in the City Auditor's 2001-02 Workplan a review of the City's five-year vehicle replacement program. (Priority 2)

The SC Program's Excessive Sampling Resulted In Unnecessary ESD Laboratory Costs

The ESD funds 14 Laboratory positions to process SC Program samples. These positions consist of a portion of the Laboratory Supervisor position, four Chemists, and nine Lab Technicians, representing 34 percent of the ESD Laboratory's 42 positions. In 1999, the Laboratory processed almost 5,000 SC Program samples and conducted an estimated 10,000 tests on these samples. According to SC Program documents, the SC Program's sampling accounts for an estimated $925,000 of the Laboratory's annual costs. By identifying and implementing an appropriate level of SC Program sampling, the ESD should proportionately reduce the SC Program's Laboratory costs.

The ESD has recognized that the SC Program unnecessarily adds samples to the Laboratory's workload. Accordingly, the ESD is proposing a reduction of four currently vacant Laboratory positions and an evaluation of the Laboratory's workload. In our opinion, this evaluation should incorporate the SC Program's revised sampling workload and should also result in additional overall efficiencies.

We recommend that the ESD:

Recommendation #11

Make appropriate changes in SC Program support services, such as Laboratory services, to reflect the SC Program's revised workload. (Priority 2)

CONCLUSION

The SC Program is overstaffed and consumes too much in the way of ESD resources. In our opinion, the ESD needs to define the SC Program's mission, goals, and objectives and establish workload standards for these activities, determine the appropriate staffing level and attendant resources required to conduct these activities, and submit a budget proposal to the City Council that will produce improved SC Program economy, efficiency, and effectiveness and customer service.

RECOMMENDATIONS

We recommend that the ESD:

Recommendation #1

- **Establish appropriate minimum inspection and sampling frequencies for significant and non-significant industrial users that are consistent with program requirements and**
- **Update SC Program procedures to reflect appropriate inspection and sampling frequencies and ensure SC Program staff compliance with these procedures. (Priority 2)**

Recommendation #2

- **Identify a consistent and justifiable level of effort necessary to fulfill all federal requirements for surveillance sampling and for trunkline sampling;**
- **Develop procedures to ensure the SC Program staff adhere to established surveillance and trunkline sampling frequencies; and**
- **Develop a system to routinely and objectively identify appropriate facilities subject to surveillance activities. (Priority 2)**

Recommendation #3

Schedule SC Program inspection and sampling events to optimize the use of SC Program staff time and resources. (Priority 2)

Recommendation #4

Develop written procedures and management reports to allow for adequate supervisory review and oversight of SC Program activities and ensure adherence with SC Program inspection goals, procedures, and frequencies. (Priority 3)

Recommendation #5

- **Evaluate options to eliminate or reduce the need for customers to visit the WPCP for plan check services related to grease traps and grease trap interceptors;**
- **Require SC Program supervisors to answer phone inquiries; and**
- **Reassign the three SC Inspectors working on the SC Program tracking database to inspector activities. (Priority 2)**

Recommendation #6 **Define the SC Program's mission, goals, objectives, and work activities. (Priority 2)**

Recommendation #7 **Identify the SC Program's actual required workload, and develop a staffing plan based on NPDES Permit requirements and an efficient use of inspector and technician positions. (Priority 1)**

Recommendation #8 **Submit a budget proposal to the City Council based upon the implementation of Recommendations # 1, 6, and # 7. (Priority 1)**

Recommendation #9 **Make appropriate changes in the SC Program's vehicle inventory to reflect the SC Program's required staffing level. (Priority 2)**

We recommend that the City Council Rules Committee:

Recommendation #10 **Include in the City Auditor's 2001-02 Workplan a review of the City's five-year vehicle replacement program. (Priority 2)**

Finally, we recommend that the ESD:

Recommendation #11 **Make appropriate changes in SC Program support services, such as Laboratory services, to reflect the SC Program's revised workload. (Priority 2)**

Finding II The Pretreatment Source Control Program Needs To Issue Appropriate Enforcement Actions More Consistently

The Environmental Services Department's (ESD) Pretreatment Source Control Program (SC Program) is responsible for the enforcement of federal and local pretreatment standards. The SC Program's approved Enforcement Response Plan (ERP) prescribes the types of enforcement actions the SC Program should take for various pretreatment violations. However, we found that the SC Program did not consistently issue enforcement actions according to the ERP procedures. Specifically, we found that the SC Program:

- Issued incorrect enforcement actions in 18 to 25 percent of the violations from 1998 to 2000 that we reviewed;
- Did not issue enforcement actions for all identified violations;
- Did not issue $20,150 in administrative citation fines from January 1, 2000 through June 30, 2000;
- Did not accurately identify facilities subject to the City of Santa Clara's Surcharge for Violation of Industrial Waste Regulations; and
- When the SC Program collected $106,574 in civil penalties from a facility in San Jose for discharge violations, the ESD inappropriately placed the monies in the Water Pollution Control Plant's (WPCP) tributary fund, rather than in the City of San Jose's Sewer Service and Use Fund (Fund 541).

In addition, we found no evidence that any of the three SC Program supervisors were reviewing the work, inspection reports, or enforcement activities of the Source Control Inspectors (SC Inspectors). As a result, the SC Program cannot ensure that it consistently enforces pretreatment violations or that identified violations are corrected.

In our opinion, the ESD needs to 1) ensure that SC Inspectors issue enforcement actions more consistently; 2) implement a process for SC Program supervisors to document their reviews of SC Inspectors' inspection reports and enforcement actions; 3) ensure compliance with the City Council's approved

Administrative Citation schedule; 4) ensure the proper application of Santa Clara's surcharge program; 5) report on the feasibility of a surcharge program for San Jose; and 6) ensure that civil penalties assessed under San Jose Municipal Code Section 15.14.720 are properly deposited into Fund 541. By so doing, the ESD will improve the administration and application of enforcement activities, penalties, and surcharges.

The SC Program Issued Incorrect Enforcement Actions In 18 To 25 Percent Of The Violations From 1998 To 2000 That We Reviewed

According to the federal Environmental Protection Agency's (EPA) regulations, pretreatment programs must develop and implement Enforcement Response Plans (ERP) to respond to violations in a timely, fair, and consistent manner. However, we found that the SC Program did not consistently implement the appropriate enforcement actions outlined in the SC Program's ERP. Our analysis of enforcement action data from 1998 through the first six months of 2000 found that the SC Program did not follow the ERP's guidance for issuing enforcement actions in 18 percent to 25 percent of the violations we reviewed.

The ERP specifies three levels of enforcement actions: 1) slight violations receive a Verbal Warning (Level 1), 2) moderate violations receive a Warning Notice (Level 2), and 3) severe violations receive a Notice of Violation (Level 3). During 1999, the SC Program issued 392 enforcement actions to industrial users with identified violations. These enforcement actions addressed violations of pollutant discharges (59%), corrosive matter for pH levels (28%), and report submissions (13%). According to the ERP's definition of the three levels of enforcement actions, 37 percent of these were Level 1 violations, 34 percent were Level 2 violations, and 29 percent were Level 3 violations. However, our review of 220 enforcement actions from 1999 found that 39 (18%) were not issued according to guidance stated in the ERP. Furthermore, our review of enforcement action data found that 25 percent of sampled 1998 enforcement actions and 24 percent of the sampled enforcement actions issued during the first six months of 2000, were inconsistent with program procedures.

We reviewed a sample of the inconsistencies we identified with SC Program management and found that the SC Inspectors using discretion to apply enforcement was the cause of many of the inconsistencies in enforcement. The following exhibit provides examples along with the SC Program's response and our analysis.

Exhibit 11 SC Program Responses To Examples Of Inconsistent Enforcement

Example 1
The SC Program issued a Notice of Violation (Level 3) for a zinc violation that should have received a less stringent action of a Warning Notice (Level 2).

SC Program Response:
Over the years, the company has had problems with zinc.

Analysis
We reviewed the facility's compliance record and found that the only violation in the previous year was for a Level 1 oil and grease violation. The facility had a Level 1 zinc violation two years prior.

Example 2
The SC Program issued a Warning Notice (Level 2) for a pH violation that should have received a more stringent action of a Notice of Violation (Level 3).

SC Program Response:
The pH may have gone down to 3.8 for a very short time, but was actually around 4.0 for about 15 minutes.

Analysis
While a pH of 4.0 would receive a Warning Notice according to the ERP, a lower pH of 3.8 is a severe violation that would warrant a Notice of Violation. SC Program documents show that during this incident, the facility's pH level dipped to 3.8 for 30 minutes, not 15 minutes. We found situations in which SC Inspectors used varying standards to enforce pH violations, as shown in Examples 2 and 3.

Example 3
The SC Program issued a Verbal Warning (Level 1) for a pH violation that should have received a more stringent action of a Notice of Violation (Level 3).

SC Program Response:
Duration was about 25 minutes and the company was making a good faith effort to mitigate.

Analysis
This severe pH violation was given a Level 1 enforcement action whereas the severe pH violation in Example 2 had a shorter duration but was given a Level 2 enforcement action. Both violations should have received a Level 3 enforcement action per the ERP.

Example 4
The SC Program issued a Verbal Warning (Level 1) for a lead violation that should have received a more stringent action of a Warning Notice (Level 2).

SC Program Response:
This was the first violation for this company. In consideration of their record and since the violation was just slightly greater than the limit, the industrial user received a Verbal Warning.

Analysis
While the ERP allows for escalated enforcement of chronic and severe violations, it does not allow the SC Program to decrease the required level of enforcement. The company's compliance history is considered only in noncompliance cases where the SC Program would need to escalate enforcement, not as a reason to decrease enforcement.

In addition to the examples noted above, we found that the SC Program also applied different techniques to identify violations subject to enforcement actions. For example, we found instances in which one SC Inspector issued an enforcement action for each separate pH violation at one facility, while another SC Inspector combined two pH violations at one facility into one enforcement action. As a result of the discretion SC Inspectors used to apply enforcement, the SC Program enforced identified violations differently.

In our opinion, the SC Program needs to ensure enforcement actions are consistently issued according to SC Program procedures. This consistency will help to eliminate uncertainty and confusion concerning enforcement for both the SC Program and industrial user facilities.

We recommend that the ESD:

Recommendation #12

Ensure that SC Inspectors enforce violations consistently and in accordance with SC Program procedures. (Priority 3)

The SC Program Did Not Issue Enforcement Actions For All Identified Violations

To ensure industrial user compliance, the EPA expects pretreatment programs to identify all violations, respond with appropriate action, and to follow-up chronic violations with escalated levels of enforcement. However, because of the discretion given to SC Inspectors and a lack of supervisory oversight, we found that the SC Program did not issue enforcement actions for all identified violations and did not consistently hold required Compliance Meetings to address severe violations.

During 1999, SC Inspectors Did Not Issue Enforcement Actions For Nine Percent Of The Identified Discharge And pH Violations

SC Inspectors are responsible for reviewing all data pertaining to their assigned industrial user facilities and recommending the appropriate enforcement action for identified violations. However, our review of 1999 data from SC Program sampling and industrial user Self-Monitoring Reports (SMR) found that the SC Program did not issue enforcement actions for nine percent of the identified discharge and pH violations.

In 1999, the SC Program issued 341 enforcement actions to address discharge and pH violations. Our review found the SC Program did not issue enforcement actions for an additional 32 discharge and pH violations, representing nine percent of the total number of discharge and pH violations identified in 1999. Of these 32 violations, 15 (47%) were considered severe or moderate according to SC Program procedures. Moreover, 20 of the violations (63%) were identified through industrial user sampling results presented in SMRs, and 12 of the violations (37%) were identified in SC Program sampling results.

The SC Program Did Not Hold 22 Percent Of The Required Compliance Meetings To Ensure Severe Violations Were Remedied

According to the ERP, if an industrial user has repeat or severe discharge violations exceeding the allowable limit more than 2.5 times, the SC Inspector must schedule a compliance meeting with the facility to outline appropriate steps and a timeframe to ensure the facility returns to compliance. We found that during 1999, the SC Program did not hold compliance meetings for 13 severe discharge violations, representing 22 percent of the total severe violations requiring compliance meetings. Furthermore, without appropriate enforcement, we found that some of these facilities had subsequent violations.

For example, in July 1999 the SC Program identified an oil and grease discharge violation from a facility that exceeded the allowable limit by nine times. A compliance meeting was not held at that time and the facility had subsequent violations.

Seven months later, the SC Program held a meeting and noted a total of six violations, including one violation that occurred more than one year prior to the meeting.

Another industrial user had an oil and grease discharge violation in December 1999 that exceeded the allowable limit by more than four times. The SC Program did not have a compliance meeting, even though the violation required a meeting, and the facility had five previous oil and grease violations earlier in the year. Furthermore, the facility had another oil and grease violation five months later.

A third industrial user had a severe Total Toxic Organic (TTO) violation in February 1999 that did not receive a compliance meeting. Three months later in May 1999, the facility had another severe TTO violation and again the SC Program did not hold a compliance meeting. After a third severe TTO violation in July 1999, the SC Program finally held a compliance meeting to address the issue.

Without scheduling appropriate compliance meetings and outlining measures to correct violations, the SC Program failed to take appropriate steps to ensure that the facilities took corrective actions. Moreover, in some instances, the SC Program's failure to enforce violations in a timely manner resulted in additional violations.

There Was No Indication Of Supervisory Review Of Inspection Reports And Violations

Appropriate management controls require continuous and qualified supervision to ensure proper review and approval of employees' activities. Adequate supervision should ensure that the SC Program 1) follows approved procedures, 2) detects and eliminates errors, misunderstandings, and improper practices, and 3) discourages wrongful acts from occurring or recurring. Based on our review of the SC Program's tracking database and the inspection files, we found that the SC Program was poorly managed and there was no indication that any SC Program supervisors or other managers had reviewed the inspection reports or consistently reviewed enforcement actions. As a result, identified violations were not enforced in a consistent or appropriate manner.

Our review of inspection reports found that many of the inspection forms had minimal comments and did not indicate that the SC Inspector had conducted a complete inspection according to SC Program procedures. These are the types of items adequate supervision should have identified and remedied. Many of the inspection reports only had check

marks or comments such as, "Looks fine," without any mention of the condition of the facility's equipment or that the inspector reviewed the wastewater treatment system and process. As a result, we found instances in which inspection reports contained conflicting information and identified equipment violations without applying proper enforcement. For example, one SC Inspector wrote "o.k." next to the housekeeping areas, but noted on the same report that the facility "need[ed] some housekeeping." As shown in the following exhibit, another SC Inspector noted pH equipment problems at one facility on seven different occasions over 16 months before the facility apparently fixed the equipment problem.

Exhibit 12 Inspection Reports Noting Equipment Problems At An Industrial User Facility

Inspection Date	Inspection Notes	Enforcement Action Issued
1-25-99	There was no paper in the pH recorder. Contact corrected.	None
2-16-99	pH meter is not working, the needle appears to be broken.	None
10-14-99	pH meter on the fritz.	None
3-10-00	The pH meter continues to be a problem.	None
3-10-00	The pH meter is not working. The repair person has been called.	None
4-13-00	pH meter still on the fritz.	None
5-23-00	pH meter out of paper.	None

Although the ERP states the SC Program should issue a verbal warning for an initial equipment maintenance violation and escalate enforcement to a notice of violation if the facility does not correct the problem after 30 days, the SC Inspector in the case did not issue any enforcement actions for the violations. Furthermore, the inspection reports did not contain any indication that a supervisor reviewed the reports to ensure the violations were enforced.

Without appropriate review and oversight, violations were left undetected even though they were reported on inspection reports, lab results, and in industrial user SMRs. Furthermore, without appropriate supervisory review there is no assurance that SC Inspectors conducted inspections according to SC Program procedures. Given the discretion SC Inspectors have to identify violations and review all information pertaining to

their assigned industrial user facilities, supervisory oversight must be adequate to ensure SC Inspectors properly and consistently enforce pretreatment regulations.

We recommend that the ESD:

Recommendation #13

Develop and implement procedures to ensure all identified violations are consistently enforced according to SC Program procedures. (Priority 3)

Recommendation #14

Develop written procedures and management reports that ensure adequate management review and oversight of inspectors' activities including inspection reports and enforcement activities. (Priority 3)

The SC Program Did Not Issue $20,150 In Administrative Citation Fines From January 1, 2000 Through June 30, 2000

Effective January 1, 2000 the ESD implemented an administrative citation schedule of fines for pretreatment violations by industrial user facilities located in the City of San Jose. When we reviewed program information from January 1, 2000 through June 30, 2000 we found that the SC Program did not issue administrative citation fines totaling $20,150.

The City Council-approved administrative citation fine schedule applies to qualifying pretreatment violations including discharges of corrosive matter, interfering substances, and late reporting. The schedule of fines for these pretreatment violations ranges from $100 to $1,000 for each violation. In October 1999, the SC Program sent notification letters to industrial users located in San Jose, informing them of the new administrative citations and their associated schedule of fines. Although the SC Program issued 13 administrative citations totaling $4,650 for qualifying violations during the first six months of 2000, it did not issue administrative citations for an additional 42 qualifying violations, totaling $20,150.

According to ESD officials, the ESD did not issue these administrative citations because the City Attorney's Office was concerned that by so doing the City could be precluded from imposing more severe enforcement actions at a later date. In our opinion, the SC Program needs to work with the City Attorney's Office in order to consistently apply the City Council-approved administrative citation schedule.

We recommend that the ESD:

Recommendation #15

Work with the City Attorney's Office to develop and implement written procedures to ensure compliance with the City Council-approved Administrative Citation schedule. (Priority 3)

The SC Program Did Not Accurately Identify Facilities Subject To The City Of Santa Clara's Surcharge For Violations Of Industrial Waste Regulations

The City of Santa Clara issues monthly sewer surcharges based on violations of industrial waste regulations at Santa Clara facilities. The surcharges are activated after the SC Program notifies Santa Clara that an industrial user received two or more Notices of Violation within a 12-month period. The SC Program notifies both the industrial user facility and the City of Santa Clara of the violations and the amount of the assessed surcharge, ranging from 50% to 1000% of the sewer bill. Santa Clara does not remove the sewer surcharge until the SC Program notifies them to do so based on written criteria demonstrating the discharge violations have ceased. However, we found that the SC Program notified Santa Clara to implement surcharges on facilities that should not have received the surcharge and did not notify Santa Clara to remove facilities from the surcharge program after they demonstrated compliance. As a result, facilities unnecessarily paid over $21,000 in sewer surcharges.

Because of inconsistencies in the SC Program's application of enforcement actions, we found that the SC Program notified Santa Clara to implement surcharges on facilities that should not have received the surcharge. For example, in 1998 the SC Program notified the City of Santa Clara to put a facility on the surcharge program after the SC Program issued a second Notice of Violation at that facility. However, according to the ERP this second violation was not severe and the facility should not have been placed on the surcharge. Moreover, the SC Program issued a third Notice of Violation for this same facility in August of 1998, and again, this third violation was not severe. Despite the SC Program's mistaken application of enforcement actions, the SC Program notified the City of Santa Clara to increase the surcharge amount because of the third Notice of Violation. Consequently, this facility should have never been on the surcharge program because it only had one severe violation and needlessly paid over $7,000 in surcharges during 1999.

We also found that the SC Program notified Santa Clara to implement surcharges on facilities that did not have any discharge violations. For example, in December 1997 one facility submitted a late SMR and the SC Program issued a Notice of Violation for late reporting. The same facility received a second Notice of Violation for not responding to the first Notice of Violation. Because the facility received two Notices of Violation, the SC Program notified Santa Clara to implement the sewer surcharge, even though the Notices of Violation were not related to discharge violations. The SC Program assessed a 100 percent surcharge rate that should have been imposed on facilities with three (not two) Notices of Violation within a 12-month period. According to City of Santa Clara officials, the City of Santa Clara applied the correct rate based on the number of notices that were issued.

Furthermore, the criteria for removal only addresses discharge violations, not late reporting, and the SC Program did not instruct the City of Santa Clara to remove this facility from the surcharge program. According to SC Program management, "there is no explanation on why they have not been taken off the list." Consequently, this facility remained on the surcharge program for all of 1999 and 2000, despite it not having any violations during 1999 and 2000. This facility timely submitted nine SMRs following its violation for late reporting in 1997 and has had no subsequent reporting or discharge violations. As a result of information developed in our audit, the SC Program determined that this facility should have been removed from the surcharge as of October 1998 and notified the City of Santa Clara. The City of Santa Clara reviewed the information, credited the facility's account for over $14,000, and removed the facility from the surcharge program.

Given that the City of Santa Clara's surcharge program relies solely on the SC Program's correct application of enforcement actions, it is imperative that the SC Program correctly applies enforcement actions according to ERP guidance. Furthermore, the SC Program must follow-up on identified violations and promptly notify the City of Santa Clara when facilities should be removed from the surcharge program.

It should be noted that the City of San Jose does not have a surcharge program for discharge violations like the City of Santa Clara's. However, if the City of San Jose were to implement a surcharge program, it could recover funds to help offset the increased costs associated with discharge violations.

For example, the City of Santa Clara received approximately $90,000 to $140,000 from 1998 to 2000 in annual surcharge revenue based upon information it received from SC Inspectors. According to the City Attorney's Office, if the City of San Jose were to implement a surcharge program like Santa Clara's, billing methods and Proposition 218 issues would need to be addressed.

We recommend that the ESD:

Recommendation #16

Develop and implement procedures to ensure the City of Santa Clara is correctly and promptly notified of 1) facilities subject to the surcharge program and 2) facilities that should be removed from the surcharge program. (Priority 3)

Recommendation #17

Report to the City Council Finance and Infrastructure Committee on the feasibility of implementing a Surcharge for Violations of Industrial Waste Regulations Program in San Jose. (Priority 2)

When The SC Program Collected $106,574 In Civil Penalties From A Facility In San Jose For Discharge Violations, The ESD Inappropriately Placed The Monies In The Water Pollution Control Plant's (WPCP) Tributary Fund Rather Than In The City Of San Jose's Sewer Service And Use Fund (Fund 541)

The ESD has established several funds to appropriately account for the financing, construction, and operation of the sewer system and the WPCP. The ESD uses the Sewer Service and Use Charge Fund 541 (Fund 541) to account for the City's contribution towards the operating and capital costs of the WPCP. The ESD uses the Treatment Plant Income Fund 514 (Fund 514) to account for the WPCP's tributary agency contributions for the plant's capital and operating costs. Therefore, revenue pertaining to tributary contributions would be placed in Fund 514. Revenue pertaining to the City of San Jose's sewer service and use would accordingly be deposited into Fund 541. However, we found that the ESD inappropriately deposited $106,574 in civil penalties into Fund 514 instead of Fund 541.

In June 2000, ESD collected $152,467 from a facility in San Jose in a settlement agreement with the City of San Jose. The City of San Jose's Attorney's Office handled the case using SC Program information on discharge violations at this San Jose facility. The City Attorney's Office is partially funded through

Fund 541 to handle legal issues for San Jose industrial user facilities.

The settlement amount included $45,893 as reimbursement for SC Program costs associated with the investigation of the discharge violations. The remaining $106,574 was assessed as civil penalties pursuant to San Jose Municipal Code Section 15.14.720.

The ESD should have deposited this $106,574 into Fund 541, but instead deposited it into Fund 514 and subsequently to the Treatment Plant Operating Fund (Fund 513). After we informed the ESD of our finding, it transferred $106,574 from Fund 513 to Fund 541.

In our opinion, the ESD should establish procedures to ensure that any future civil penalties assessed under San Jose Municipal Code Section 15.14.720 are deposited into Fund 541.

We recommend that the ESD:

Recommendation #18

Ensure any future civil penalties assessed through San Jose Municipal Code Section 15.14.720 are placed in Fund 541. (Priority 1)

CONCLUSION

The Pretreatment Source Control Program needs to make improvements to ensure all violations are identified, appropriately enforced, properly fined, and corrected. These changes are needed to ensure industrial user facilities correct identified violations and are ultimately in compliance with federal pretreatment standards. To improve the SC Program, the ESD needs to improve the methods and consistency with which SC Inspectors implement program procedures, and ensure SC Program supervisors provide adequate oversight of enforcement actions and inspector activities.

RECOMMENDATIONS

We recommend that the ESD:

Recommendation #12 **Ensure that SC Inspectors enforce violations consistently and in accordance with SC Program procedures. (Priority 3)**

Recommendation #13 **Develop and implement procedures to ensure all identified violations are consistently enforced according to SC Program procedures. (Priority 3)**

Recommendation #14 **Develop written procedures and management reports that ensure adequate management review and oversight of inspectors' activities including inspection reports and enforcement activities. (Priority 3)**

Recommendation #15 **Work with the City Attorney's Office to develop and implement written procedures to ensure compliance with the City Council-approved Administrative Citation schedule. (Priority 3)**

Recommendation #16 **Develop and implement procedures to ensure the City of Santa Clara is correctly and promptly notified of 1) facilities subject to the surcharge program and 2) facilities that should be removed from the surcharge program. (Priority 3)**

Recommendation #17 **Report to the City Council Finance and Infrastructure Committee on the feasibility of implementing a Surcharge for Violations of Industrial Waste Regulations Program in San Jose. (Priority 2)**

Recommendation #18 **Ensure any future civil penalties assessed through San Jose Municipal Code Section 15.14.720 are placed in Fund 541. (Priority 1)**